



## Columbia, Crew Under Way on MSL-1 Spacelab Mission

Space Shuttle Columbia returned to orbit with a smooth launch Tuesday, briefly delayed by clouds and showers around the Kennedy Space Center launch complex. The 1:02 p.m. CDT launch began what is planned as a 16-day mission in which the seven-member crew will work around the clock in the Marshall-managed Microgravity Science Laboratory (MSL) facility housed in the Shuttle's cargo bay.

Involving the same vehicle, crew and experiment activities as originally planned earlier this year, the crew of Columbia are set to continue NASA's efforts to understand the subtle and complex

phenomena associated with the influence of gravity in many aspects of daily life. The flight involves the STS-94 crew spending more than two weeks in orbit as they conduct a variety of experiments to examine how various materials and liquids change and behave in the weightlessness of space.

At Marshall's Spacelab Mission Operations Control facility, dozens of scientists, engineers and controllers were on-station during the final launch countdown, standing ready to swing into action in support of on-orbit science activities once Columbia settled into orbit.

The primary focus for STS-94 is the

same as it was for the abbreviated STS-83 mission in April — to conduct experiments and evaluate facilities associated with the MSL payload. The flight marks a bridge to America's future in space with a mission that spans the gap between the relatively short duration work done on today's Shuttle Spacelab flights to the long duration research that will be performed on the International Space Station (ISS).

The STS-94 mission will fly some new experiment facilities that first flew on STS-83 and are designed to give scientists additional tools for finding

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## NASA, Hydrology Center Help Lead Dialogue on Climate

The effects of climate variability and change on regional natural resources — in particular, water resource management — were the focus of a three-day conference last week at Vanderbilt University in Nashville.

NASA and the Global Hydrology and Climate Center were principal sponsors of the Workshop on Climate Variability and Water Resource Management in the Southeast.

Among highlights of the conference were an address by Vice President Al Gore on Wednesday evening and a keynote talk earlier in the day by Atlanta Mayor Bill Campbell.

The workshop's primary objective was to initiate a dialogue on how improved understanding of regional weather and climate changes can save lives, money and property. As the conference concluded on Friday, the Marshall Center's Dr. Ron Greenwood, director of the Global Hydrology and Climate Center, summed up the event with the assessment that it did represent a major stride toward its goal.

"The key objective was to begin a two-way education process — first, to educate the regional stakeholders about climate variability and what they might expect from our research," Greenwood said. Stakeholders are groups, such as farmers, or local and state emergency management officials, who are affected in very significant ways by weather and climate factors.

"Second, it allowed them to tell us what they feel their vulnerabilities are to climate change in each of the stakeholder

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Vice President Al Gore addresses last week's regional climate change conference. On right is Dr. John Gibbons, assistant to the president for Science and Technology.

# McCullar Detailed to New Microgravity Research Office

**R**on McCullar, director of Marshall's Facilities Office in the Institutional and Program Support (I&PS) Directorate has been detailed to the new Microgravity Research Program Office, pending formal approval by NASA Headquarters.

McCullar will have primary responsibility for planning and implementing microgravity research activities as they relate to the International Space Station. Activities include the management interface between the Microgravity Research Program Office and the Space Station Program Office at Johnson Space Center. It also involves the budget, schedule and technical planning and control for payloads and projects funded by the Space Station Budget; systems integration and coordination with foreign partners and other NASA centers for development and use of microgravity research and space product development.

McCullar has served as deputy director of the Systems Engineering and Integration at the Space Station Program Office in Reston, Va. While at NASA Headquarters, McCullar was program manager for the Galileo, Compton Gamma Ray Observatory and Solar Maximum Repair Mission programs of the Office of Space Science and Applications.



*"Good things come to those who wait" is the moral of the story for Teri Hassell, CM21X, who was the last computer user at Marshall to undergo the transition from the Workstation Presentation Services (WPS) system to the Distributed Desktop Services, or DDS, system. When technicians performed the changeover for Hassell, they also replaced her old computer with a new Pentium work station, a change she clearly finds to her liking. DDS Project Manager Neil Rodgers of Information Systems Services Office said WPS-to-DDS migrations were performed on a production basis over a six-month period, and in that timespan Marshall's DDS user population was increased from 1,400 to 5,115.*

*Photo by George Askins*

# On-Site Bank Has 34-Year Record of Service at Marshall Center

*by Carol Wasserman, NASA Exchange*

**M**ost Center employees are not even aware that the bank facility in building 4200 has a new name. The same tellers and branch supervisor are still there, but on Nov. 12, 1996, First Alabama Bank of Huntsville officially changed their name to Regions Bank. The name change acknowledges the bank's expansion into other Southeastern states.

Banking services at the Marshall

Center began as an unsolicited proposal from the former First National Bank of Huntsville in 1963 to establish a branch bank in building 4200. Due to the distance from other banking facilities and for the convenience of the then workforce of 6,900 civil service and 3,820 contractor employees, NASA Headquarters requested and received approval from the Secretary of the Treasury for the establishment of the branch. Marshall's NASA Exchange

continues the service through a concessionaire agreement with Regions Bank.

As Marshall has had a major role in the evolution of space age technology, the banking business has likewise evolved with progress of the computer age. Movie stereotypes of grim bank tellers with sleeve

garters, eyeshades and sour dispositions have little to do with real life bank personnel or today's automated systems and 24-hour telephone accessibility of services.

With 18 years of banking experience with Regions, Joyce Killingsworth has seen many of these changes. She became Marshall branch supervisor in January 1997, and also carries the titles of head teller, new accounts clerk, and loan officer. Killingsworth is a gardening enthusiast, which also includes growing flowers, and she teaches a senior adult class at her church.

Muriel Little also has 18 years of banking experience with 6 of those years serving Marshall employees. Mrs. Little also enjoys gardening and entertaining her two grandchildren.

A "short-timer" in comparison with the other employees, Lineise Arnold has five years of teller experience with Regions and two years at Marshall. Arnold holds an A.A. degree in police science from Calhoun Community College and a B.A. in criminal justice from Athens State. She also works with youth groups in her

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*Customers visit Regions Bank located on the first floor of Building 4200.*

*Photo by Dennis Olive*



# Climate Workshop Sponsors Include NASA and Global Hydrology

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areas," Greenwood added. "So, the process has begun, and we expect it to continue."

The workshop in Nashville was one of seven regional conferences being held around the country this summer. It dealt with topics affecting a region including Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North and South Carolina, and Tennessee.

The workshop was sponsored by NASA, under its Mission to Planet Earth; the National Oceanic and Atmospheric Administration; and the U.S. Geological Survey. The series of regional climate change workshops is an initiative of the U.S. Global Change Research Program and the White House Office of Science and Technology Policy.

In a show of White House support for the effort, Vice President Al Gore addressed the conference Wednesday

evening, citing the daunting challenge posed by the impact of human activity on Earth's basic conditions.

The vice president described a "new relationship" between Earth's inhabitants and the global climate, warning of traumatic results unless decisive steps are taken to counter the release of "greenhouse gases," which many scientists believe are causing global warming.

"There is an imperative to act," Gore told the group. "We've got the technology, the entrepreneurs and the know-how to solve the problem. If we have the will and commitment, there's no question we can make things happen."

Another facet of the conference which drew wide attention to it was an announcement of results from climate research by conference co-chairman Dr. James O'Brien. O'Brien said he and his colleagues at Florida State University,

using the type of sweeping analysis of decades' worth of weather data that is possible with modern computing power, had found evidence of a new "tornado alley" stretching from northern Alabama to Michigan.

Of key importance, O'Brien's finding indicates that periods of high tornado likelihood in the area are foreshadowed months beforehand by the "El Viejo" phenomenon — the appearance of a large area of cool water in the eastern Pacific off the coast of Peru.

## Regions Bank

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church and sings in the church choir.

"All Marshall employees and on-site contractors are invited to visit the bank between the hours of 8:30 a.m. - 4 p.m. to discuss any banking services they might need," said Killingsworth. "The most important part of banking is still maintaining a personal relationship with the customer."

## MSL-1 Mission

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answers in the microgravity of space.

One such new component on MSL-1 is the innovative EXPRESS Rack, standing for "EXpedite the PROcessing of Experiments to the Space Station." It is designed for quick and easy installation of experiment and facility hardware on orbit and will provide the same structural and resource connections the rack will have on ISS.

STS-94 will be the 23rd Flight of Columbia and the 85th mission flown since the start of the Space Shuttle program in April 1981.

The Microgravity Research Program at Marshall sponsors the Spacelab microgravity science research flights.



Dan Woodard, second from right, of the Microgravity Research Programs Education and Outreach Office, explains the mini drop tower payload to Mobile, Ala., school teachers during a microgravity presentation held at Marshall recently. The teachers were participating in a six-day Aerospace Education Workshop sponsored by the South Alabama Research and In-service Center at the University of South Alabama.

Photo by Emmett Given

## Marshall Annual Awards Ceremonies July 10 — Morris Auditorium

**9:30 a.m.** Agency awards and awards external to NASA  
**2 p.m.** Marshall Center Awards

## Obituary

**Wilbur Thornton, 74**, Huntsville, died June 3. He retired from Marshall in 1979 where he worked as an aerospace engineer. He is survived by his wife Lottie Thornton.

## Employee Ads

### Miscellaneous

- ★ John Deere LX172 garden tractor \$1,500. 721-1474
- ★ Brown metal desk no dents \$50. 852-2346
- ★ Oversized wooden refinished antique office desk \$250. 883-2689
- ★ Body by Jake AB machine. 24lb. boat trolling motor, used once. Best offers. 882-7084
- ★ Graco open-top swing \$60; Graco pack-n-play \$50; FP car seat \$30; and Nelson walker \$20. 721-0764
- ★ Full size dust ruffle, matching shams and 2 pr. drapes plus rods and pins \$15. 883-5543
- ★ 1988 17.5 Dynatrak fish and ski boat. \$6,200 o.b.o. 306-0194
- ★ 6 foot sliding glass doors with screen. \$100 each or all four for \$300. 379-5284
- ★ 1996 SeaDoo GSX jet ski, 25 hours, 110HP, under warranty, with trailer \$5,800. 353-9514
- ★ Audio Technica professional VHF wireless head set microphone system, includes numerous cables \$400 negotiable. 464-6423
- ★ Bunk beds, mattress, box springs, desk, book shelves, chest, chair, pecan finish \$250. 837-0958
- ★ Two king-size waterbeds w/four 3-drawer pedestals. \$200 with designer headboard, \$100 with bookcase headboard. 881-8960
- ★ Sega Genesis includes controller, RF switch, five games. Approx. value \$325, asking \$125. 881-5088
- ★ VOIT wet tops, small/medium. Two personal VOIT safety vests. Make offer. 881-3248
- ★ Alto saxophone, VITA, w/case. Best offer over \$200. 895-9348
- ★ 1990 Smokercraft Alante 17', 3.0L Mercruiser, I/O, 140HP, open bow, sun-deck, drive-on trailer \$5,500. 586-7797

### Vehicles

- ★ 1997 Mercury Tracer, 4-door, 11K miles, a/c, ABS, \$11,400. 883-2757
- ★ 1982 Toyota pickup, 155K miles, hightop camper shell \$1,400. 882-9042

### Vehicles

- ★ 1993 Toyota Camry LE, 57K miles, gold pkg. \$11,000. 837-0085
- ★ 1992 GMC Safari SLE extended van, ABS, dual a/c, luggage rack, full power \$9,000. 880-0896
- ★ 1995 Chevrolet Lumina LS, blue, 36K miles, PW, PS, cruise, am/fm cass., \$13,000. 751-2131
- ★ 22ft Winnebago MH, new diesel, refrigerator, interior, CD; microwave, generator, TV, VCR. Reduced \$12,900. 461-8721
- ★ 1985 Honda CRX, HF, 170K miles \$1,600. 232-8311
- ★ 1969 Buick LaSabre restored garaged, 88K miles, new tires, new battery \$4,500. 536-8475

### Wanted

- ★ To buy Lily Flag pool membership. 881-8953
- ★ Large pressure canner in ready-to-use condition. 881-1823

## Center Announcements

- ✦ **NASA Exchange** — Closeout on NASA (worm logo) red or white caps - \$5 each (reg. \$7). In addition, the vector (meatball logo) cap has been reduced from \$9 to \$7 each and the navy golf shirt from \$22 to \$18. Sale starts July 2. New merchandise has been received and is displayed in the activities building lobby (4752). Sale hours are 7:30 a.m. - 3:30 p.m., Monday through Friday.
- ✦ **Toastmasters** — Redstone Toastmasters International will meet every Tuesday at 6 p.m. in the Morrison's Cafeteria in Madison Square Mall. For more information call 461-0476.
- ✦ **Injury Prevention Class** — The next Back Injury Prevention Class will be held on July 9 from 1 p.m. to 2:30 p.m. at building 4752, all purpose room. Contact Bill Stease at 4-7571 if you would like to attend this course and learn how to help take care of yourself.
- ✦ **AFGE** — The AFGE local 3434 will hold its monthly meeting July 8 at 11:30 a.m. in building 4200, Union Hall G-38.

✦ **Thank You** — Thanks to the Marshall community for your support in the Marrow Donor Drive. Your *living gift of life* as a volunteer marrow donor gives patients like myself hope for a cure for fatal blood diseases such as leukemia, as well as a second chance at life. Again, thank you for helping me find my second chance. Teresa Cobb Smith, GP46

## Job Opportunities

**CPP 97-66-CV, Program Analyst, GS-343-11/12**, Microgravity Research Program Office, Program Planning and Control Office. Closes July 9, 1997.  
**REASSIGNMENT BULLETIN: 97-12-CP**, Budget Analyst, GS-560-11/12, Office of Chief Financial Officer, Resources Management Office, (2 vacancies). Closes July 11, 1997.  
**CPP 97-42-CL, Supv, AST, Experimental Facilities Development, GS-801-15**, I&PS, Facilities Office, Engineering Division. Closes July 7, 1997.  
**CPP 97-50-CL, AST, Aerospace Metallic Materials, GS-806-14**, S&E, Materials & Processes Lab, Metallic Materials & Processes Div, Metallurgical Engineering Br. Closes July 7, 1997.  
**CPP 97-51-CL, AST, Technical Management, GS-801-14**, Technology Transfer Office, Technology Development & Investment Office. Closes July 11, 1997.  
**CPP 97-59-CP, Supervisory, Auditor, GS-511-14**, Office of Chief Financial Officer, Internal Control Office. Closes July 7, 1997.  
**CPP 97-60-TH, AST, Technical Management Systems, GS-801-14**, Systems Analysis & Integration Lab, Configuration Management Div, Project Support Branch. Closes July 7, 1997.  
**CPP 97-67-DC, AST, Aerospace Flight Systems, GS-861-14**, S&E, Transportation Systems Chief Engrs, Advanced Space Transportation Engr. Closes July 10, 1997.  
**REASSIGNMENT BULLETIN: 97-13-CV**, Office Services Clerk, GS-303-6, Microgravity Research Program Office, Office of the Manager. Closes July 7, 1997.  
**CPP 97-70-PL, Secretary (OA), GS-318-05**, S&E, Structures & Dynamics Lab, Structural Design Div, Structural Development Br. Closes July 14, 1997.

# MARSHALL STAR

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